

Instruction Manual

1. Marking

Ethernet Isolator EI-0D2-10Y-10B-LT
EC-type examination certificate: PTB 07 ATEX 2025 X ⊕ II (1) G [Ex ia Ga] IIB , ⊕ II (1) D [Ex ia Da] IIIC , ⊕ II 3(1)G Ex nA [ia Ga] IIB T4 Gc, ⊕ II 3 (1D) G Ex nA [ia IIIC Da] IIB T4 Gc, ⊕ I (M1) [Ex ia Ma] I
IECEx approval: IECEx PTB 09.0053X [Ex ia Ga] IIB [Ex ia Da] IIIC Ex nA [ia Ga] IIB T4 Gc Ex nA [ia IIIC Da] IIB T4 Gc [Ex ia Ma] I
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2. Validity

Specific processes and instructions in this instruction manual require special provisions to guarantee the safety of the operating personnel.

3. Target Group, Personnel

Responsibility for planning, assembly, commissioning, operation, maintenance, and dismantling lies with the plant operator. The personnel must be appropriately trained and qualified in order to carry out mounting, installation, commissioning, operation, maintenance, and dismantling of the device. The trained and qualified personnel must have read and understood the instruction manual.

4. Reference to Further Documentation

Observe laws, standards, and directives applicable to the intended use and the operating location. Observe Directive 1999/92/EC in relation to hazardous areas.

The corresponding datasheets, manuals, declarations of conformity, EU-type examination certificates, certificates, and control drawings if applicable supplement this document. You can find this information under www.pepperl-fuchs.com.

Due to constant revisions, documentation is subject to permanent change. Please refer only to the most up-to-date version, which can be found under www.pepperl-fuchs.com.

5. Intended Use

The Ethernet isolator is designed to generate a galvanically isolated intrinsically safe Ethernet signal from a non-intrinsically safe Ethernet signal.

The Ethernet isolator can be used to lead a standard Ethernet cable through a hazardous area Zone 0 or Zone 1: Use an Ethernet isolator at each end of the hazardous area in order to lead the intrinsically safe Ethernet line through the hazardous area.

The device is designed for mounting on a 35 mm DIN mounting rail according to EN 60715.

The device fulfills a degree of protection IP20 according to IEC/EN 60529.

The device must be installed and operated only in a controlled environment that ensures a pollution degree 2 (or better) according to IEC/EN 60664-1.

If used in areas with higher pollution degree, the device needs to be protected accordingly.

6. Improper Use

Protection of the personnel and the plant is not ensured if the device is not used according to its intended use.

The device is only approved for appropriate and intended use. Ignoring these instructions will void any warranty and absolve the manufacturer from any liability.

7. Mounting and Installation

Prior to mounting, installation, and commissioning of the device you should make yourself familiar with the device and carefully read the instruction manual.

Observe the installation instructions according to IEC/EN 60079-14.

Do not mount a damaged or polluted device.

If the device has already been operated in general electrical installations, the device may subsequently no longer be installed in electrical installations used in combination with hazardous areas.

7.1. Hazardous Area

7.1.1. Gas

7.1.1.1. Zone 2

The device may be installed in Zone 2.

Connection or disconnection of energized non-intrinsically safe circuits is only permitted in the absence of a potentially explosive atmosphere.

The device must be installed and operated only in surrounding enclosures that

- comply with the requirements for surrounding enclosures according to IEC/EN 60079-0,
- are rated with the degree of protection IP54 according to IEC/EN 60529.

7.1.2. Type of Protection Ex i

The intrinsically safe Ethernet connection of the device is only approved for connecting up with another identical device.

Only cables and connection lines that meet the requirements of the respective hazardous area certificate of the device may be connected to the intrinsically safe connection.

The energy stored in the cable must not exceed the maximum permissible energy limits.

Adhere to the energy limits. Use one of the following options.

Observe the permissible cable type and cable length given in the respective hazardous area certificate.

Observe the permissible maximum L/R ratio given in the respective hazardous area certificate.

To provide a sufficient heat dissipation, mount the devices with a separation distance.

Keep half the distance of the device width to adjacent devices on each side of the device.

8. Operation, Maintenance, Repair

Prior to using the product make yourself familiar with it. Read the instruction manual carefully.

Do not repair, modify, or manipulate the device.

Do not use a damaged or polluted device.

If there is a defect, always replace the device with an original device.

9. Delivery, Transport, Disposal

Check the packaging and contents for damage.

Check if you have received every item and if the items received are the ones you ordered.

Keep the original packaging. Always store and transport the device in the original packaging.

Store the device in a clean and dry environment. The permitted ambient conditions must be considered, see datasheet.

The device, built-in components, packaging, and any batteries contained within must be disposed in compliance with the applicable laws and guidelines of the respective country.